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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,233

05/17/2005

Tatsuro Ota

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05/10/2007

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EXAMINER

BUTTNER, DAVID J

ART UNIT

PAPER NUMBER

1712

MAIL DATE

DELIVERY MODE

05/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/535,233

Applicant(s)

OTA ET AL.

Examiner

David Buttner

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 5/17/05;8/10/05.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

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Note that a restriction will be necessitated if additional claims are presented to species of dispersed polymer, species of blocking agent, species of crosslinker etc.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7,9,10 and 14 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 is indecipherable. It is unclear how "either one" affects the claim as such a phrase infers a choice between two alternatives. It is not clear whether the materials are all alternatives to one another or if there are two lists of alternatives. What is the significance of separating some species with commas and some with semi-colons? The claim could also be interpreted as requiring all named species be present because "and" is used before the last species and Markush language was not employed. The must be rewritten in a clear unambiguous manner.

Claim 9's "(meth) acrylic" conventionally means "acrylic or methacrylic". Methacrylic is not acrylic (see Encyclopedia of Polymer Science). Even if one improperly considered "acrylic" to be a generic term that included methacrylics, one cannot use "acrylic" both in a generic sense and a narrower in the same claim.

Claim 10 and 14's "degree of polymerization of 1" does not result in a polymer.

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Claims 1,3-6,8-12 and 14 rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 1,3-6,8-12 and 14 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in applicant's comparative preparatory examples 6,9. In those examples, it is shown that lack of a crosslinker results in a poor product. Applicant's designation of these as "comparatives" indicates that the invention is different from what is defined in the claim(s) because the claims do not require the presence of a crosslinker.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 01/88009.

Ohno '147 is relied on as a translation.

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Ohno (table 1) exemplifies of blocked urethane prepolymer with acrylic particles, CaCO_3 , plasticizer, curing agent and CaO . The particles simultaneously qualify as both the polymer and acrylic resin of claim 12. The blocked prepolymer is derived from polyetherpolyol, diphenylmethanediisocyanate and an oxime blocking agent (col 6 line 38-55).

The ratio of acrylic particles to urethane prepolymer is 20/1 – 1/20 (col 4 line 2).

Claims 1-6 and 8-14 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 01/88011.

Nakayama EP1283229 is relied on as a translation.

Nakayama (table 1) exemplifies of blocked urethane prepolymer with acrylic particles, CaCO_3 , plasticizer, curing agent and CaO . The particles simultaneously qualify as both the polymer and acrylic resin of claim 12. The blocked prepolymer is derived from polyetherpolyol, diphenylmethanediisocyanate and an oxime blocking agent (paragraph 19). The ratio of acrylic particles to urethane prepolymer is 20/1 – 1/20 (paragraph 13).

Claims 1-9 and 11-13 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Huynh-Tran '969.

Huynh exemplifies (#6) blends of PMMA, polyol curing agents, and a urethane prepolymer based on toluenediisocyanate/polyetherpolyol/oxime blocking agent. The PMMA simultaneously qualify as both the polymer and acrylic resin of claim 12

Claims 1-14 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Huynh-Tran '918.

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Huynh claims (#1) plastisols of a blocked urethane prepolymer, a curing agent and mixtures of PVC and acrylic polymer. PVC qualifies as claim 12's "polymer". The amount of polyurethane is 2-100,000 parts per 100 parts of the thermoplastics (col 9 line 41).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Buttner whose telephone number is 571-272-1084. The examiner can normally be reached on weekdays from 10 to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAVID J. BUTTNER
PRIMARY EXAMINER

David Buttner



5/9/07